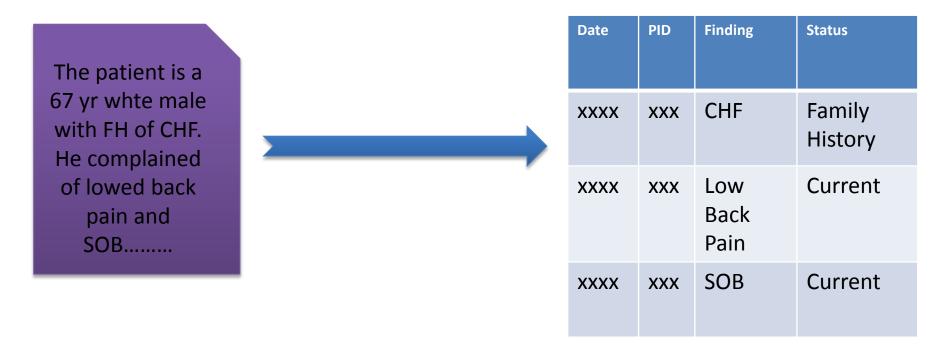
V3NLP: A Text Processing System for Clinical Notes

Qing Zeng, Guy Divita, Brian Ivie, Doug Redd, Jonathan Nebeker

Salt Lake City VA

From Text to Coded Data

 Text processing, natural language processing, information extraction, text mining

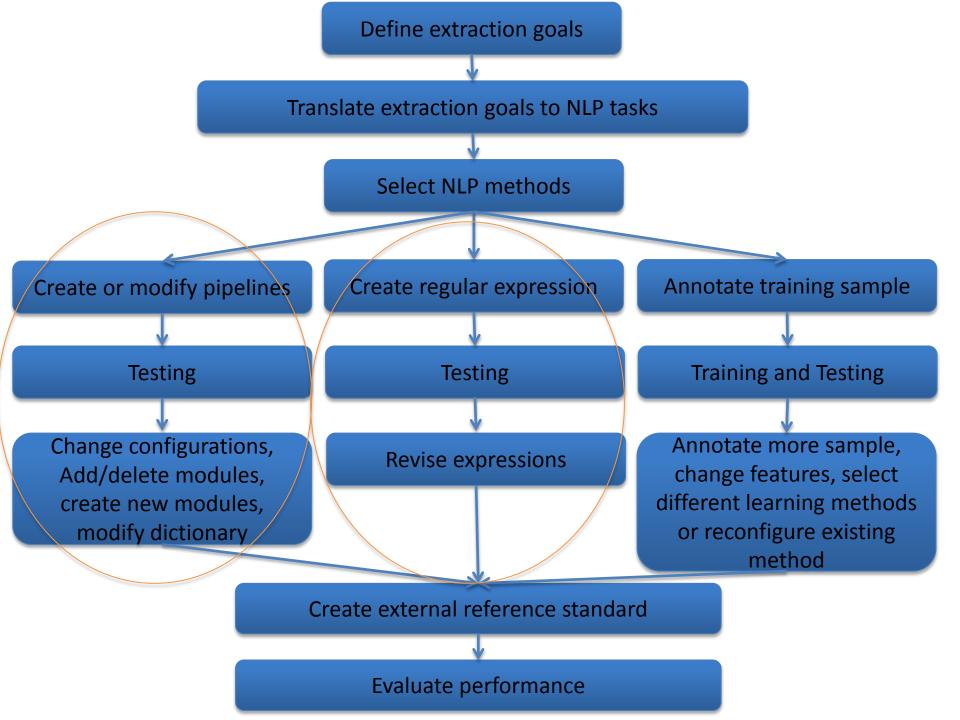


General Approach

- Analyze the task
- Select tools and methods
- Evaluate results

Three Main Approaches

- Regular expression
 - If we know the exact text pattern to search for
- Ontology/dictionary based approach
 - If there is existing knowledge
- Machine learning
 - If there is sufficient annotated data
- Mix and match different approaches based on specific clinical tasks



Main Components

- Interface
- Library of NLP modules
- Framework
- Common data model and shared annotation labels

Features in New Release

- New negation modules
- DB saving option
- Fast indexing modules

Next Steps

- Update the existing V3NLP on VINCI
- Release V3NLP as open source software
- Incorporate new modules and features

Questions & Comments

- We would like to hear about your NLP needs
 - Q.t.zeng@utah.edu